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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,948	09/10/2003	Mackenzie E. King	ATMI-579	3524
25559	7590	09/08/2005	EXAMINER	
ATMI, INC. 7 COMMERCE DRIVE DANBURY, CT 06810			SIEFKE, SAMUEL P	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 09/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/658,948	Applicant(s) KING ET AL.	
	Examiner Samuel P. Siefke	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 6 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/24/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/15/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in the reply filed on 6/24/05 is acknowledged. The traversal is on the grounds that there would be a great economy of cost and effort on the part of the Office, and certainly to the applicants... further applicant argues that the inventions do not possess sufficient differences to warrant issuance of separate patents. This is not found persuasive because restriction is proper when the inventions are distinct if it can be shown that **either**: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP 806.05(e)). In this case the process can be practiced by hand, stopping the flow of the plating bath sample from the electrochemical processing tool can be stopped by manually turning a valve in response to a sufficient amount (a volume line on the side of the chamber) of sample in the testing chamber.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. (USPN 4,326,940).

Eckles teaches an on-stream apparatus for analyzing the concentrations of chemical components in an electroplating bath. The apparatus comprises a column 10, UV radiation detector 11 and an electro chemical detector, all of which are analysis chambers (col. 4, lines 3-10). Eckles teaches an electroplating bath 43, from which a sample flows through a four-way valve (six way but configured for four way) to a sample loop 51. The sampling duct of Eckles is any tubing that the sample flows through. A multiport valve (actuatable) is in fluid communication with the sampling duct (col. 5, lines 1-60) has multiple delivery paths, sample from bath to analyzer, sample from bath back to bath etc (col. 7, lines 1-26). A solvent delivery system 2, which is connected to the multiport valve, provides carrier fluid for sample transport. Eckles teaches that samples are volumetrically applied to the HPLC column 10 (col. 7, lines 7, lines 24-26). Further Eckles provides a microprocessor controller 4 that controls sample flow throughout the system (col. 7, lines 36-66) that include controlling the 4 way valve and the multiport for injection of sample, directing the sample to a waste line, purging the sample lines by a

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purge gas, and further directing the purge gas to a waste line. A purging gas source 92 of nitrogen is provided in communication with the four-way valve 20 (col. 8, lines 8-12), also inert gas 100 (nitrogen) is connected to the electrochemical detector 12 for purging or reference signal generation (col. 10, lines 8-11). A waste line in fluid communication with the four-way valve is provided (col. 5, lines 38-41; col. 7, lines 10-15).

Eckles does not specifically teach a flow sensor.

Eckles teaches that samples are volumetrically applied to the HPLC column 10 (col. 7, lines 7, lines 24-26). It would have been obvious to one having ordinary skill in the art to employ a flow sensor in order to provide precise volumes of sample to analysis chamber to aid in concentrations calculations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke

A handwritten signature in black ink, consisting of a stylized, overlapping loop structure.

September 2, 2005

A handwritten signature in black ink, appearing to be 'LAX' in a stylized, cursive font.

LYLE A. ALEXANDER
PRIMARY EXAMINER